UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/309,038	05/10/1999	PETER BERNARD HEIFETZ	A-30496B	7012

22847 7590 10/08/2004

SYNGENTA BIOTECHNOLOGY, INC.
PATENT DEPARTMENT
3054 CORNWALLIS ROAD
P.O. BOX 12257
RESEARCH TRIANGLE PARK, NC 27709-2257

EXAMINER	
MEHTA, ASHWIN D	
ART UNIT	PAPER NUMBER
1638	

DATE MAILED: 10/08/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Advisory Action	Application No.	Applicant(s)	
	09/309,038	HEIFETZ ET AL.	
	Examiner	Art Unit	
	Ashwin Mehta	1638	

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 08 September 2004 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE. Therefore, further action by the applicant is required to avoid abandonment of this application. A proper reply to a final rejection under 37 CFR 1.113 may only be either: (1) a timely filed amendment which places the application in condition for allowance; (2) a timely filed Notice of Appeal (with appeal fee); or (3) a timely filed Request for Continued Examination (RCE) in compliance with 37 CFR 1.114.

PERIOD FOR REPLY [check either a) or b)]

a) ☒ The period for reply expires 4 months from the mailing date of the final rejection.

b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection. ONLY CHECK THIS BOX WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

1.☒ A Notice of Appeal was filed on *08 September 2004*. Appellant's Brief must be filed within the period set forth in 37 CFR 1.192(a), or any extension thereof (37 CFR 1.191(d)), to avoid dismissal of the appeal.

2.☒ The proposed amendment(s) will not be entered because:

(a) ☒ they raise new issues that would require further consideration and/or search (see NOTE below);

(b) ☐ they raise the issue of new matter (see Note below);

(c) ☒ they are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or

(d) ☐ they present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: *See Continuation Sheet*.

3.☒ Applicant's reply has overcome the following rejection(s): See Continuation Sheet.

4.☐ Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).

5.☒ The a)☐ affidavit, b)☐ exhibit, or c)☒ request for reconsideration has been considered but does NOT place the application in condition for allowance because: *See Continuation Sheet*.

6.☐ The affidavit or exhibit will NOT be considered because it is not directed SOLELY to issues which were newly raised by the Examiner in the final rejection.

7.☒ For purposes of Appeal, the proposed amendment(s) a)☒ will not be entered or b)☐ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.

The status of the claim(s) is (or will be) as follows:

Claim(s) allowed: _____.

Claim(s) objected to: _____.

Claim(s) rejected: *1, 5-12, 16-30, 34-40, 47, 49, 56, 58, 62, 73, and 76-86*.

Claim(s) withdrawn from consideration: _____.

8.☐ The drawing correction filed on _____ is a)☐ approved or b)☐ disapproved by the Examiner.

9.☐ Note the attached Information Disclosure Statement(s)(PTO-1449) Paper No(s). _____.

10.☐ Other: _____

ASHWIN D. MEHTA, PH.D.
PRIMARY EXAMINER

Continuation of 2. NOTE: The claim amendments indicating that the claimed method confers resistance or tolerance to more than one virus from the recited group of virus familes raise new issues for search and consideration under 35 U.S.C. 112, 1st paragraph and 103(a)., at least.

Continuation of 3. Applicant's reply has overcome the following rejection(s): the rejection of claims 47, 49, 56, 58, and 86 under 35 U.S.C. 112, 2nd paragraph and claims 1, 5-12, 16-30, 34-40, 62, 73, and 76-85 remain rejected under 35 U.S.C. 103(a).

Continuation of 5. does NOT place the application in condition for allowance because: Applicants' response does not overcome the rejection of claims 12, 16-30, 34-40, 49, 56, 58, 73, and 76-86 under 35 U.S.C. 112, 1st paragraph, for lack of written descriptive support. Applicants argue that the nucleotide sequence of BNYVV RNA1 was available, that it was published in 1987 in GenBank Acc. No. D00115 and revised in April 1998, the updated 1998 version being provided in Exhibits 1-3 (response, page 8, 2nd full paragraph). However, that "a" version of this sequence was available at the time of filing is not the issue. The sequence at this GenBank accession number was replaced after the filing date of the instant application, in February 2002. Applicants have admitted this in the response filed February 11, 2004, on page 9. The specification cannot be said to describe something that was unknown at the time of filing. It is again suggested that the BNYVV sequence that appeared in GenBank Accession No. D00115 be made a part of this sequence listing, and that the submission be accompanied by a letter indicating that the sequence is a version that was known in the art at the time of filing. Applicants also argue that claim 82 was amended to recite a sequence identifier (response, page 8, 3rd full paragraph). However, claim 82 does not recite any sequence identifier. Further, the amended claims now indicate that resistance or tolerance is conferred to more than one virus selected from the group consisting of any furovirus, any potyvirus, any tospovirus, and any cucomovirus. However, the specification does not describe any such sequence that confers resistance or tolerance to more than one of the recited viruses. No information is provided at all regarding the sequences of any virus of the recited groups of viruses that, when used with the claimed method, will confer resistance or tolerance to more than one virus. The rejection would also be applied to new claims 87-89.

Applicants' amendments also do not overcome the rejection of claim 81 under 35 U.S.C. 112, 1st paragraph, for reciting new matter. The amended claim now recites that the portion of the BNYVV replicase gene is 452 nucleotides. Applicants indicate that support is found on page 42, lines 26-27 (reponse, page 7). This portion of the specification indicates that a PCR product has the sequence of nucleotides 5168-5620 of BNYVV RNA1. However, written descriptive support is lacking for other 452 nucleotide fragments from the BNYVV replicase gene, as encompassed by the claim.

The claim amendments also do not overcome the rejection of claims 12, 16-30, 34-40, 49, 56, 58, 73, and 76-86. The amendments do not overcome the issue of fragments as small as 21 or, as amended, 15 nucleotides conferring virus resistance or tolerance. Applicants do not address the rejection in their remarks. Further, the specification does not teach any viral nucleotide sequences that can be used in the claimed invention to confer resistance against more than one virus from the recited viral familes. No guidance is provided at all in how one skilled in the art is to determine what viral sequences would have this property. See Genentech, Inc. v. Novo Nordisk, A/S, 42 USPQ2d 1001, 1005 (Fed. Cir. 1997), which teaches that "the specification, not the knowledge of one skilled in the art" must supply the enabling aspects of the invention. Further, the claims still encompass BNYVV sequences that were not known at the time the instant application was filed, for the reasons discussed above. The rejection would also be applied to new claims 87-89.